

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Anthony Mark Pasqualoni, Deepak Mahulikar,
Larry A. LaFollette and Richard J. Jenkins

Serial No.: Not Yet Assigned

Filed: Not Yet Assigned

For: A CHEMICAL MECHANICAL POLISHING SLURRY
COMPOSITION FOR POLISHING CONDUCTIVE AND
NON-CONDUCTIVE LAYERS ON SEMICONDUCTOR
WAFERS

Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

Confirmation No.: Not Yet Assigned

Customer No.: 27,623

Attorney Docket No.: 341.6910USQ

Mail Stop DD
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with applicant's duty of disclosure under 37 C.F.R. §1.56, please find attached hereto form PTO-1449 listing information which may be material to the patentability of this application, filed concurrently herewith. This Information Disclosure Statement is being filed:

 X Within three (3) months of the filing date of the national application;

 Within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application;

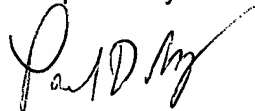
 Before the mailing date of a first Office Action on the merits;

- _____ After the filing date or date of first Office Action, but before the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e) or the fee set forth in 37 C.F.R. §1.17(p);
- _____ After the filing date or date of first Office Action, but before the mailing date of a Notice of Allowance under 37 C.F.R. §1.311, provided that this occurs prior to the final action and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e) or the fee set forth in 37 C.F.R. §1.17(p);
- _____ After the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by a certification as specified in 37 C.F.R. §1.97(e) and the fee set forth in 37 C.F.R. §1.17(p); and
- _____ After the mailing date of a Notice of Allowance under 37 C.F.R. §1.311, provided that this occurs prior to or subsequent to the payment of the Issue Fee and provided that this I.D.S. is accompanied by a certification as specified in 37 C.F.R. §1.97(e) and the fee set forth in 37 C.F.R. §1.17(p).
- _____ Filing with RCE Under 37 CFR 1.114.

The following references were either (1) cited by or (2) submitted to the Patent and Trademark Office in priority application Serial No. 09/845,549 , filed April 30, 2001 Accordingly, copies of the following references have not been submitted herewith. (37 C.F.R. §1.98(d)).

It should be understood that attention has been called to the references that have been deemed to be pertinent to the claimed present invention. In concluding what was pertinent, the criteria employed was considered most appropriate in light of the invention shown in the present application. However, the Examiner or others may deem some other criteria to be just as appropriate or more appropriate. Therefore, the Examiner is respectfully urged to review the listed references and to make the usual careful independent search for other prior art that may be pertinent.

Respectfully submitted,



December 1, 2003

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FORM PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)

341.6910USQ

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Applicant

Pasqualoni et al.

Filing Date

Not Yet Assigned

Group Art Unit

Not Yet Assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,170,273	2/23/65	Walsh et al.			
	3,527,028	9/26/67	Donald R. Oswald			
	4,050,954	9/27/77	Jagtar S. Basi			
	4,169,337	10/2/79	Charles C. Payne			
	4,304,575	12/8/81	Charles C. Payne			
	4,462,188	7/31/84	Charles C. Payne			
	5,139,571	8/18/92	Deal et al.			
	5,230,833	7/27/93	Romberger et al.			
	5,246,624	9/21/93	Miller et al.			
	5,314,843	5/24/94	Yu et al.			
	5,340,370	8/23/94	Cadien et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	Carpio et al., "Initial Study on Copper MCP Slurry Chemistries", Thin Solid Films, 1995.
	Stavreva et al., "Chemical-Mechanical Polishing of Copper for Interconnect Formation", Microelectronic Engineering, 1997.
	In Proceedings of the CMP-MIC conference "Development of a 1:1:1 Slurry for Tantalum Layer Polishing", February 1999.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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	5,607,718	3/4/97	Sasaki et al.			
	5,656,097	8/12/97	Olesen et al.			
	5,695,384	12/9/97	Howard R. Beraton			
	5,750,440	5/12/98	Vanell et al.			
	5,770,095	6/23/98	Sasaki et al.			
	5,908,509	6/1/99	Olesen et al.			
	5,954,997	9/21/99	Kaufman et al.			
	5,980,775	11/9/99	Grumbine et al.			
	5,993,685	11/30/99	Currie et al.			
	5,996,595	12/7/99	Olesen et al.			
	6,010,962	1/4/00	Liu et al.			

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						YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	Kumar et al., "Chemical-Mechanical Polishing of Copper in Glycerol Based Slurries", Materials Research Society Symposium Proceedings, 1996.
	Gutman et al., "Chemical-Mechanical Polishing with Oxide and Polymer Interlevel Dielectrics", Thin Solid Films, 1995.
	Lou et al., "Stabilization of Alumina Slurry for Chemical-Mechanical Polishing of Copper", Langmuri, 1996.

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	6,171,352	01-2001	Lee et al.	51	307	
	6,461,227	10-2002	Fang Mingming	451	41	
	6,325,705	12-2001	Burke et al.	451	288	
	6,063,306	05-2000	Kaufman et al.	252	79.4	
	6,136,711	10-2000	Grumbine et al.	438	692	
	2002/0032987	03-2002	Steckenrider et al.	51	309	
	2002/0003225	01-2002	Hampden-Smith et al.	252	79.1	
	6,171,352	01-2001	Lee et al.	51	307	
	6,461,227	10-2002	Fang, Mingming	45	141	
	6,325,705	12-2001	Burke et al.	451	288	
	6,036,306	05-2000	Kaufman et al.	252	79.4	

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CUSTOMER NO.: 27623

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